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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,373	10/05/2000	Burton A. Hipp	A-69620/DCA/JWC	2579

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B. Noel Kivlin
Meyertons, Hood, Kivlin, Kowert & Goetzel P.C.
P.O. Box 398
Austin, TX 78767-0398

EXAMINER

VAUGHN JR, WILLIAM C

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 07/19/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/684,373

Applicant(s)

HIPP ET AL.

Examiner

William C. Vaughn, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-27 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

1. This Action is in regards to the Amendment and Response received on 22 April 2004.

Response to Arguments

2. Applicant's arguments and amendments filed on 05 December 2003 have been carefully considered but they are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment to the claims which significantly affected the scope thereof.

3. The application has been examined. The Examiner acknowledges the cancellation of claims 1-8. Newly added claims 9-27 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 9-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (Sun), U.S. Patent No. 6,442,663 in view of Belsan et al. (Belsan), U.S. Patent No. 5,403,639.
6. Regarding **claim 9**, Sun discloses the invention substantially as claimed. Sun discloses *a method comprising: creating a snapshot image from a software application running on a first computer [see Sun, Figure 3, Col. 9, lines 1-37], wherein the snapshot image includes at least one process [see Sun, Col. 9, lines 13-25], state information associated with the process and an identifier associated with the software application [see Sun, Col. 6, lines 10-43], and wherein creating the snapshot image comprises dividing the process into sharable data and non-sharable*

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data (Sun teaches within the Memory Space Representation are vertices which are called significant nodes and trivial nodes. Significant nodes and their properties are recorded in the MSRLT data structures. During process migration the significant nodes can be visited multiple times due to their multiple references and that trivial nodes are visited only once via their variable names or memory addresses. In order to prevent multiple copies of significant memory blocks from being transmitted during process migration, the significant nodes are registered so that the status of the nodes can be checked. Sun, further teaches global and local variables) [see Sun, Col. 10-35], *(The Examiner is utilizing Applicant's specification as guide for interpreting the non-shareable data. See page 10, lines 19-21); restoring an instance of said software application on a second computer different from the first computer* (Sun teaches utilizing a restoration mechanism to restore the data content to the memory space on a different machine) [see Sun, Col. 1, lines 56-67, Col. 2, lines 1-9, Col. 3, lines 47-57, Col. 11, lines 65-67, Col. 12, lines 1-5 and Col. 22, lines 46-64]. However, Sun does not explicitly disclose dividing the snapshot image into shareable data and non-shareable data as well as controlling access by said instance to the non-shareable data.

7. In the same field of endeavor, Belsan discloses (e.g., file server having snapshot application data groups). Belsan discloses controlling access by said instance to the non-shareable data (Belsan teaches that the file server system utility has access authorization to the snapshot application data group), [see Belsan, Col. 34, lines 32-34] as well as providing the means to save modified memory pages, in order to save the pages relevant to the snapshot image.

8. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Belsan's teachings of a file server having

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snapshot application data groups with the teachings of Sun, for the purpose of providing copies of data records that are accessible to the end user in a computing environment that may be homogeneous or heterogeneous [see Belsan, Col. 1, lines 57-67]. By this rationale claim 9 is rejected.

9. Regarding **claim 10**, Sun-Belsan discloses *wherein said non-shareable data is copied on a write operation* [see Belsan, Col. 4, lines 45-57]. The same motivation that was utilized in the combination of claim 9, applies equally as well to claim 10. By this rationale **claim 10** is rejected.

10. Regarding **claim 11**, Sun-Belsan discloses *wherein said non-shareable data is multiplexed* [see Belsan, Col. 8, lines 61-67 and Col. 9, lines 1-4]. The same motivation that was utilized in the combination of claim 9, applies equally as well to claim 11. By this rationale **claim 11** is rejected.

11. Regarding **claim 12**, Sun-Belsan discloses *wherein said non-shareable data is virtualized* [see Belsan, Col. 2, lines 43-54]. The same motivation that was utilized in the combination of claim 9, applies equally as well to claim 12. By this rationale claim 12 is rejected.

12. Regarding **claim 13**, Sun-Belsan discloses *wherein said instance is altered to provide customization of the software application* [see Belsan, Col. 12, lines 58-67 and Col. 16, lines 32-52]. The same motivation that was utilized in the combination of claim 9, applies equally as well to claim 13. By this rationale **claim 13** is rejected.

13. Regarding **claim 14**, Sun-Belsan discloses *wherein references to said non-shareable data are saved in original form* [see Sun, Col. 10, lines 38-54]. By this rationale **claim 14** is rejected.

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14. **Claims 15-20** list all the same elements of claims 9-14, but in memory medium (The Examiner is interpreting Memory medium to mean computer memory. Thus this limitation is statutory) form rather than method form. Therefore, the supporting rationale of the rejection to claims 9-14 applies equally as well to claims 15-20.

15. **Claims 21-27** list all the same elements of claim 9-14, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claims 9-14 applies equally as well to claims 21-27.

Response to Arguments

16. Applicant's Request for Reconsideration filed on 22 April 2004 has been carefully considered but is not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention.

a. Applicant contends that the effective filing date of the Application is 05 October 1999.

b. Applicant also states that they did not receive a signed copy of the PTO-1449.

c. Applicant asserts that Geaghan does not include at least one process, state information associated with the process and an identifier associates with the software application.

17. As to "Point A", the Examiner agrees with applicant in regards to the filing date.

18. As to "Point B", the Examiner will again attach the previously signed PTO-1449 to this Office Action.

19. As to "Point C", this argument regarding Geaghan is moot on grounds of the new rejection. However, with regards to this specific limitation, Sun-Belsan in combination do teach

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at least one process, state information associated with the process and an identifier associates with the software application [see Sun, Col. 9, lines 13-25 and Col. 6, lines 10-43].

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

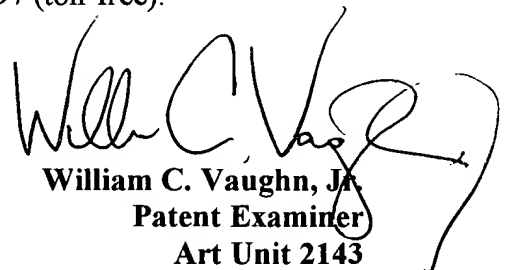
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Vaughn, Jr. whose telephone number is (703) 306-9129. The examiner can normally be reached on 8:00-6:00, 1st and 2nd Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William C. Vaughn, Jr.
Patent Examiner
Art Unit 2143
08 July 2004